

CLAIMS

SDA/ 1.

A skylight assembly, comprising:

at least one skylight shaft;

at least one layer of reflective film on the inside of the shaft;

at least one layer of adhesive holding the film to the shaft; and

at least one surface irregularity formed in at least one of: the adhesive,
the reflective film, and the shaft.

2.

The skylight assembly of Claim 1, further comprising:

a skylight dome covering a top end of the shaft.

3.

The skylight assembly of Claim 1, further comprising:

a diffuser plate covering a bottom end of the shaft.

4.

The skylight assembly of Claim 1, wherein the film includes plural
layers.

5.

The skylight assembly of Claim 1, wherein the film is greater than fifty
percent (50%) specularly reflective.

1 6. The skylight assembly of Claim 5, wherein plural surface irregularities
2 are formed without defining a pattern.

1 7. The skylight assembly of Claim 1, wherein the surface irregularity is
2 formed in the adhesive as the adhesive is deposited on the inside of the shaft.

1 8. The skylight assembly of Claim 1, further comprising:
2 plural surface irregularities.

1 9. The skylight assembly of Claim 1, wherein the surface irregularities
2 establish a pattern.

1 10. The skylight assembly of Claim 1, wherein each surface irregularity
2 includes:

3 an upper face establishing a first angle with respect to a long axis of the
4 shaft;

5 and

6 a lower face establishing a second angle with respect to the long axis
7 of the shaft, the first angle being more acute than the second angle.

11. A skylight assembly, comprising:
2 at least one skylight shaft;

3 ~~at least one layer of reflective film on the inside of the shaft;~~
4 ~~at least one layer of adhesive holding the film to the shaft; and~~
5 ~~means for diffusing light as it is reflected through the length of the shaft.~~

1 12. The skylight assembly of Claim 11, further comprising:
2 means for allowing only light to enter the skylight shaft.

1 13. The skylight assembly of Claim 11, further comprising:
2 means for further diffusing light reflected through the length of the shaft
3 as it exits the shaft.

50
14. A method for making a skylight shaft, comprising the acts of:
2 providing a flat substrate;
3 forming surface irregularities in the substrate;
4 rendering the flat substrate reflective; and
5 forming a shaft out of the substrate.

1 15. The method of Claim 14, wherein the surface irregularities are formed
2 by moving the substrate between two rollers closely spaced from each other, at least
3 one roller having means for forming the surface irregularities in the substrate.

1 16. The method of Claim 14, wherein the surface irregularities are formed
2 by rolling at least one roller across the substrate, the roller having means for forming
3 the surface irregularities in the substrate.

1 17. The method of Claim 14, wherein the surface irregularities are formed
2 by pressing the substrate with a press having means for forming the surface
3 irregularities in the substrate.

1 18. The method of Claim 14, wherein the rendering act is undertaken by
2 adhering a reflective film onto the substrate.

1 19. A method for making a skylight shaft, comprising the acts of:
2 providing a flat substrate;
3 forming surface irregularities in the substrate;
4 applying adhesive to the substrate;
5 applying a reflective film to the adhesive; and
6 forming a shaft out of the substrate.

1 20.. The method of Claim 19, wherein the surface irregularities are formed
2 by moving the substrate between two rollers closely spaced from each other, at least
3 one roller having means for forming the surface irregularities in the substrate.

1 21. The method of Claim 19, wherein the surface irregularities are formed
2 by rolling at least one roller across the substrate, the roller having means for forming
3 the surface irregularities in the substrate.

1 22. The method of Claim ¹⁹19, wherein the surface irregularities are formed
2 by pressing the substrate with a press having means form forming the surface
3 irregularities in the substrate.

1 ¹⁹23. A method for making a skylight shaft, comprising the acts of:
2 providing a flat substrate;
3 applying adhesive to the substrate;
4 forming surface irregularities in the adhesive;
5 applying a reflective film to the adhesive; and
6 forming a shaft out of the substrate.

1 ²⁰24. The method of Claim ¹⁹23, wherein the surface irregularities are formed
2 by moving the substrate between two rollers closely spaced from each other, at least
3 one roller having means for forming the surface irregularities in the adhesive.

1 ²¹25. The method of Claim ¹⁹23, wherein the surface irregularities are formed
2 by rolling at least one roller across the substrate, the roller having means for forming
3 the surface irregularities in the adhesive.

1 22-26. The method of Claim 23, wherein the surface irregularities are formed
2 by pressing the substrate with a press having means for forming the surface
3 irregularities in the adhesive.

1 27. A skylight assembly, comprising:

2 at least one skylight shaft;
3 means for reflecting light through the shaft; and
4 means for diffusing light as it is reflected through the shaft.

1 28. The skylight assembly of Claim 27, further comprising:

2 means for allowing only light to enter the skylight shaft.

1 29. The skylight assembly of Claim 27, further comprising:

2 means for further diffusing light reflected through the length of the shaft
3 as it exits the shaft.

1 30. A skylight assembly, comprising:

2 a shaft; and

3 a reflective surface on the inside of the shaft, the surface defining at
4 least one diffusion anomaly on an otherwise smooth inner shaft surface.

1 31. The skylight assembly of Claim 30, wherein the surface is established
2 by a film adhered to the shaft.

1 32. The skylight assembly of Claim 30 wherein the surface is established
2 by the shaft itself.

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